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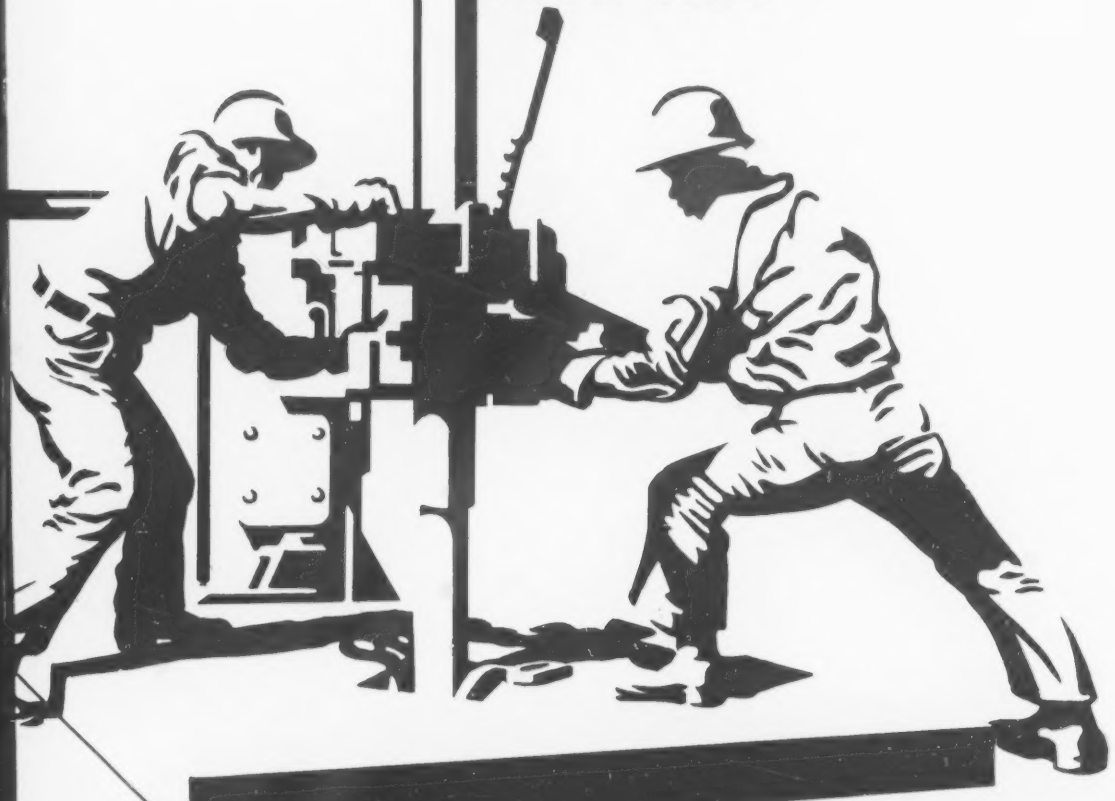
CHASE

FINANCIAL ANALYSIS OF A GROUP OF PETROLEUM COMPANIES - 1985

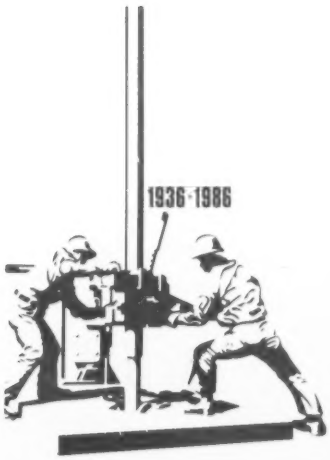
50 years of partnership with the industry 1936-1986



FINANCIAL ANALYSIS OF A GROUP OF PETROLEUM COMPANIES - 1985

by -

David J. Behling, Jr. • William L. Liscom • Norma J. Anderson • Maria C. Rigatti



Global Petroleum Component, October 1986

Companies Included in Study

Amerada Hess Corporation
Amoco Corporation
Ashland Oil, Inc.
Atlantic Richfield Company
The British Petroleum Company p.l.c.
Champlin Petroleum Company
Chevron Corporation
Exxon Corporation
The Louisiana Land and Exploration Company
Mobil Oil Corporation
Murphy Oil Corporation
Petrofina Societe Anonyme
Phillips Petroleum Company
Royal Dutch/Shell Group of Companies
Societe Nationale Elf Aquitaine
Sun Company, Inc.
Texaco Inc.
Tosco Corporation
TOTAL Compagnie Francaise des Petroles
Unocal Corporation

This study is based on data secured from annual reports to stockholders and to the Securities and Exchange Commission and on information developed from other sources. The Energy Economics Group of Chase Manhattan Bank wishes to thank the companies and individuals who have cooperated in supplying special information and material used in this survey.

Additional copies may be obtained from:
Energy Economics
The Chase Manhattan Bank, NA
3rd Floor
1 Chase Manhattan Plaza
New York, NY 10081

Foreword

The 1985 edition of The Chase Manhattan Bank's annual Financial Analysis of a Group of Petroleum Companies once again aggregates detailed financial statistics for a group of 20 large, non-OPEC petroleum companies. Contributing approximately one-fourth of the world's oil and gas production, the Chase Group represents a significant focal point for assessing the financial situation of the worldwide petroleum industry, defined here to exclude centrally planned economies.

A number of changes have been made to the publication. Two completely new sets of data have been added to the statistical tables: "Results from Oil and Gas Producing Activities" and "Estimated Proved Developed and Undeveloped Reserves of Oil and Gas." Statistics regarding the Group's capital and exploration expenditures have in general been simplified and now conform with the accounting conventions of the U.S. Securities and Exchange Commission (SEC). A new set of data, "Costs Incurred in Property Acquisitions, Exploration and Development," has been added to the text. These data provide an insight into the exploration and production segment of the industry in isolation, which will be particularly important now that falling crude oil prices are exerting greater pressure on upstream performance. Data regarding the production of natural gas and natural gas liquids have also been added. Natural gas liquids are combined with crude oil.

Some aspects of the performance of the Chase Group are compared with the performance of a group of nearly 250 smaller, independent U.S.-based companies (denoted as Independents). Statistics on Independents have been compiled from annual reports and 10-K submissions to the U.S. SEC. Selected performance measures achieved by the Chase Group are also compared with those for U.S. manufacturing.

Due to the above changes, certain definitions and formats have been revised in this edition compared to prior ones. A detailed description of these revisions is provided on page 28. A consequence of these revisions is that historical estimates contained in previous editions of this publication are not strictly comparable to the 1984 and 1985 estimates presented in this edition.

This year marks the fiftieth anniversary of the creation of a specialized petroleum division within The Chase Manhattan Bank and the fortieth year of the publication of Financial Analysis. We are pleased to provide this publication as a service to the petroleum industry, as well as to others with related interests.

David J. Behling, Jr.

Operations

Crude Oil and Natural Gas Liquids Production

Production of crude oil and natural gas liquids by the Chase Group rose nearly one-half million barrels per day to 10.6 million barrels per day in 1985. This 4.6 percent increase mirrored the increase in total non-OPEC production, whereas OPEC production dropped nearly 10 percent. Total worldwide production declined by almost one percent, in line with the small decrease in world oil demand. The Chase Group's share of total worldwide production rose to 25.0 percent from 23.6 percent in 1984. The increase in production by the Chase Group as a whole was balanced evenly between the United States and other countries.

In this edition, natural gas liquids are included with crude oil, whereas in prior editions they had been excluded. Natural gas liquids typically represent about 10 percent of total liquids production for the Chase Group.

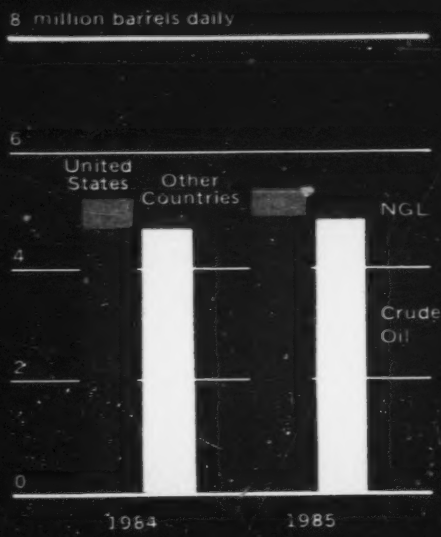
Natural Gas Production

In contrast to liquids production, worldwide natural gas production of the Chase Group was unchanged between 1984 and 1985 at 10.2 trillion cubic feet. This overall trend masked regional differences. Natural gas production in the United States decreased 3.9 percent between 1984 and 1985, in the face of declining demand. In contrast, natural gas production outside the United States increased by 5.9 percent. These trends for the Chase Group reflected those in total industry production for these regions.

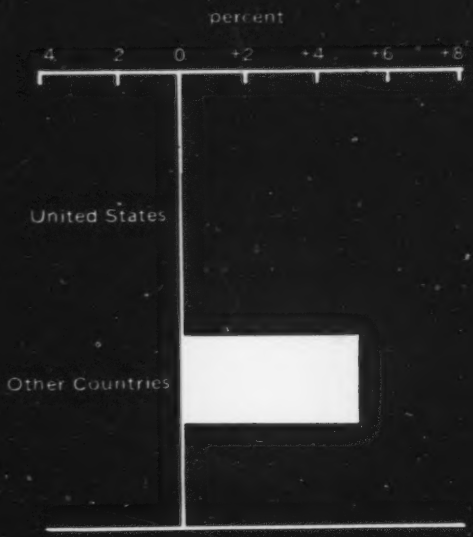
Refinery Runs

The volume of crude oil refined by the Group in 1985 dropped by nearly 6 percent, which was more than the decline in refined product demand for the industry as a whole. This was partially the result of sales of refining assets that had been recently acquired by several members of the Chase Group during mergers and acquisitions.

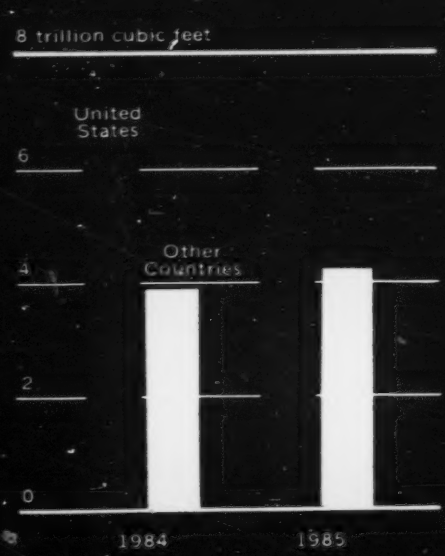
NET CRUDE OIL AND NATURAL GAS LIQUIDS PRODUCTION



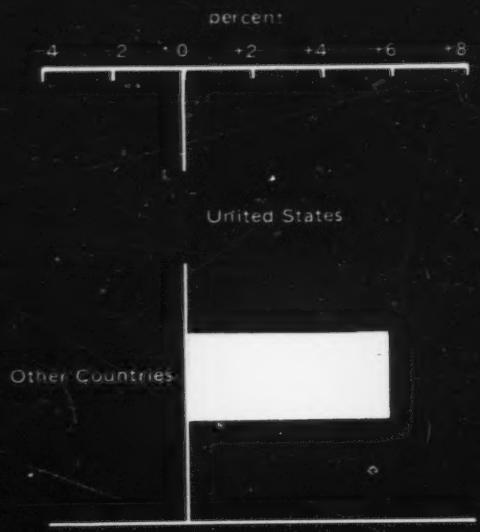
CHANGE FROM 1984



NET NATURAL GAS PRODUCTION



CHANGE FROM 1984



The Group's net dependence on external crude and natural gas liquid sources declined, as the share of Group refining runs supplied from their sources of production rose from 52.1 percent in 1984 to 57.9 percent in 1985.

U.S. refining capacity utilization improved 3.0 percent in 1985, largely as a result of scrappage, which in turn helped boost general refining profitability. Over the course of 1985, profitability of heavy oil conversion increased considerably from extremely depressed levels at the beginning of the year. This was the result of the decline in residual fuel oil prices relative to the price of crude oil, from unprecedented levels during the British coal strike, to more normal levels after the strike ended in March 1985. Residual fuel oil demand continued to decline.

Revenue

In 1985, the Group's gross operating revenue rose to $564.6 billion, $40.0 billion more than in 1984. This 7.6 percent increase was achieved in the face of falling oil and natural gas prices at the wellhead. In the United States, the average wellhead prices of both crude oil and natural gas declined almost 7 percent to $24.10 per barrel for crude oil and $2.48 per thousand cubic feet for natural gas. Overseas, wellhead prices of crude oil and natural gas also fell. Wholesale and retail prices for petroleum products likewise declined, but by less than the wellhead price for crude oil, as refining and marketing margins rose. In addition, various excise taxes on petroleum products increased.

Several factors contributed to higher revenue for the Chase Group, in spite of declining oil and natural gas prices. As previously mentioned, production of crude oil and natural gas liquids increased. Proceeds from the sale of chemical products also rose substantially, as did the revenue obtained from other, non-petroleum, operating activities. Finally, dollar revenue obtained from activities outside the United States expanded rapidly in 1985, as the value of foreign currencies increased relative to the dollar.

Over and above the revenue generated from operations, the Group also received $7.4 billion in non-operating revenue in 1985, up from $5.4 billion in 1984. These funds primarily represent interest and dividends. The combined operating and non-operating revenue of the Chase Group in 1985 totaled $572.0 billion, 7.9 percent more than in 1984.

Charges Against Revenue

Operating costs and expenses, at $442.5 billion, accounted for the largest deductions against gross revenue. Operating costs and expenses rose by 6.1 percent between 1984 and 1985, compared to the 7.9 percent increase in gross revenue. Several cost-cutting measures were employed to limit growth in operating costs, including significant staff reductions.

Non-operating charges, at $71.8 billion, increased 24.0 percent between 1984 and 1985. Selling, general and ad-

ministrative (S, G and A) costs were up $3.3 billion; depreciation, depletion and amortization (D, D and A), $5.2 billion; interest expense, $2.1 billion; and other charges, $3.3 billion. All these increases, except for S, G and A, were related to major restructurings of several members of the Chase Group. D, D and A charges were affected by the accounting treatment of several large asset write-downs. British Petroleum (via their 55 percent ownership of Standard Oil Ohio) and Arco each had write-downs of about $1.0 billion while those of Sun and Amerada Hess were each about $0.5 billion. Restructuring also contributed to the $3.3 billion increase in other non-operating charges.

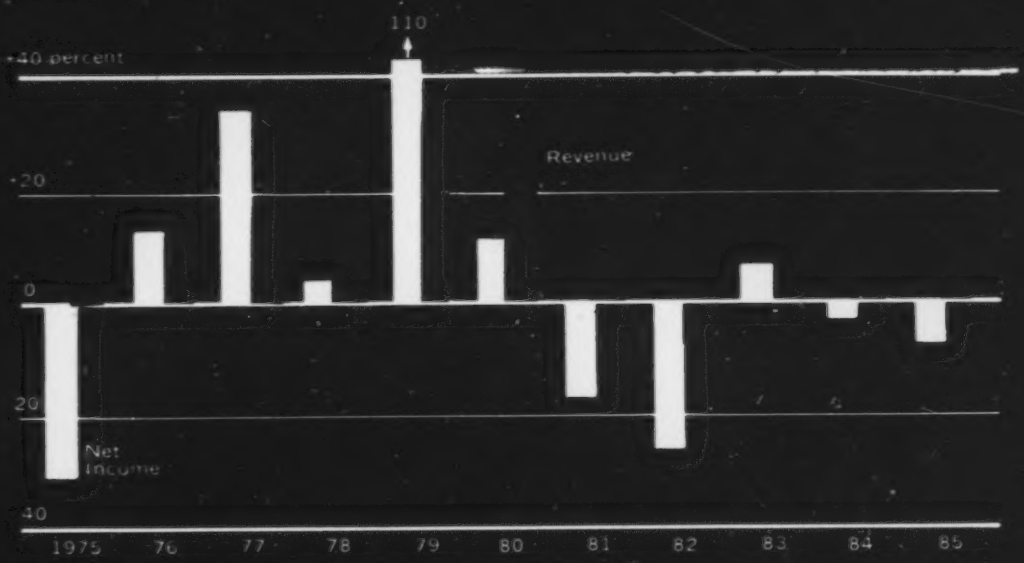
Interest expenses rose for two reasons. Firstly, the average long-term debt level of the Group was considerably higher in 1985 than in 1984, although year-end levels, as reported below, do not reflect this fact because of the large build up that occurred during 1984. Secondly, several of the smaller, more highly leveraged companies expanded debt in 1985, while the larger companies generally retired debt. This resulted in a greater concentration in higher risk instruments. As a consequence, there was an increase in the average interest rate on external debt.

Net Income

With these large increases in non-operating costs, total charges against revenue rose by $39.4 billion, compared to $41.9 billion growth in total revenue. Consequently, net income before taxes increased, but by only $2.5 billion. In contrast, cash earnings rose by $4.5 billion.

Estimated income taxes and extraordinary items were both considerably larger in 1985, income taxes by $3.0 billion and

CHANGES IN REVENUE AND NET INCOME
YEARS 1975 – 1985



INCOME TAXES
AS A PERCENT OF TOTAL REVENUE

NET INCOME
AS A PERCENT OF TOTAL REVENUE

extraordinary items by 2.0 billion. As a result, net income after taxes and extraordinary items fell by 6.8 percent to $18.7 billion.

The Group's net income after income taxes and extraordinary items for the United States and Rest of the World is presented in the table below for 1984 and 1985.

	Net Income		Change	
	1985	1984		
	Million $		Million $	Percent
United States	8,289	9,191	-902	-9.8
Rest of the World	10,410	10,874	-464	-4.3
Total	18,699	20,065	-1,366	-6.8

For the third year in a row, net income in the United States declined relative to that in the rest of the world. The large $0.9 billion decline in U.S. net income was due in part to unusually large charges against earnings resulting from discontinued activities. Outside the United States, there were not as many special charges. The fall in the value of the dollar also helped boost earnings outside the United States. Still, net income outside the United States also fell by $0.5 billion.

Results of Oil and Gas Producing Activities

Shown in the table below are results from oil and gas producing activities. These results incorporate only revenues and charges directly related to production activities and exclude all charges relating to financing and extraordinary items. As a result, they are an indicator of the operating profitability of the ongoing production activities of the Chase Group.

Results from Oil and Gas Producing Activities

	1985	1984	Change	
	Billion $		Billion $	Percent
Total Revenue	119.3	113.6	+ 5.7	+ 5.0
Total Deductions	67.5	62.3	+ 5.2	+ 8.4
Results Before Income Taxes	51.8	51.3	+ 0.5	+ 1.0

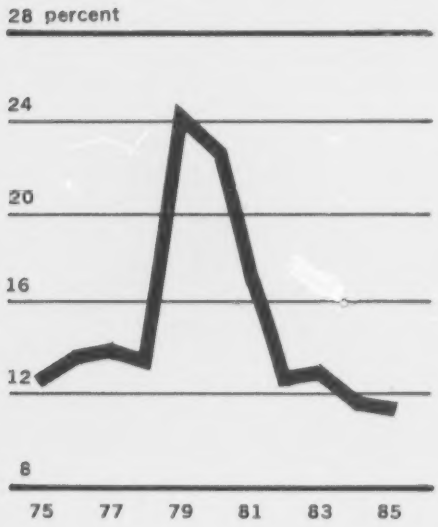
In 1985, total revenue from producing activities rose $5.7 billion, while total deductions increased $5.2 billion. As a result, results before income taxes grew by $0.5 billion to reach $51.8 billion.

This 1.0 percent increase in before-tax results from producing activities compares with a 4.6 percent increase in total

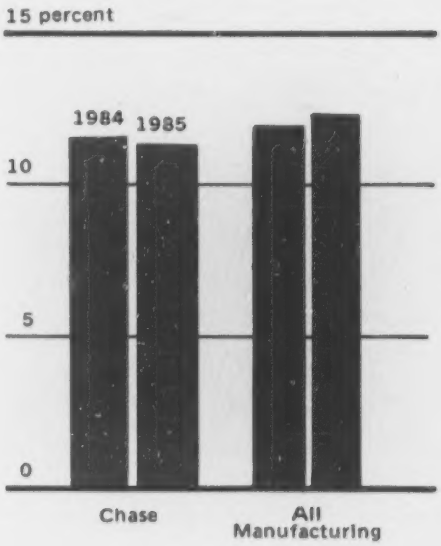
RATES OF RETURN

RETURN ON AVERAGE SHAREHOLDERS' EQUITY

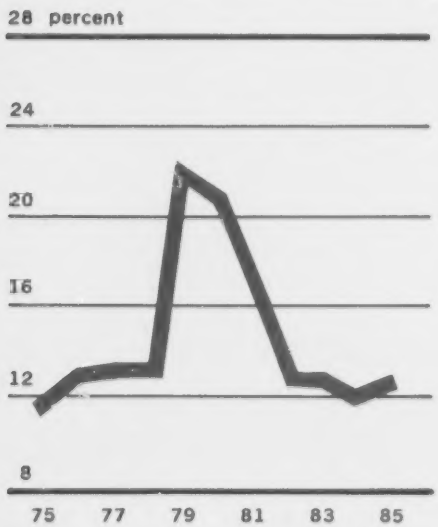
Chase Group



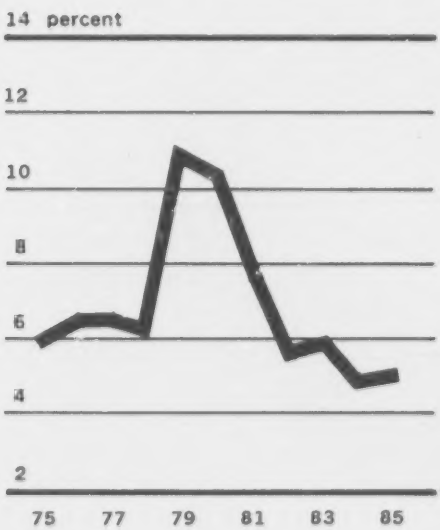
Company Groupings



RETURN ON AVERAGE CAPITAL EMPLOYED



RETURN ON AVERAGE TOTAL ASSETS



before-tax net income for all activities of the Chase Group, as measured in the Group's income statement. Technically these growth rates are not strictly comparable, due to differing accounting treatments. Still, such a comparison is in line with the generally perceived poorer profit performance obtained by the Group from upstream activities as compared to downstream and non-petroleum activities.

Rates of Return

A comparison of the different measures of rates of return shown below illuminates the impact of financing charges on overall profitability of the Chase Group. The return on shareholders' equity declined from 11.6 to 11.3 percent, partly as a result of rising interest costs, whereas the return on capital employed rose from 12.0 to 12.4 percent.

As in the past, the larger companies in the Chase Group tended to be more profitable than the smaller companies. The return on equity for the largest eight companies by revenue averaged 11.8 percent, relative to 8.9 percent for the remainder of the Chase Group. The 11.3 percent return on equity achieved by the entire Chase Group in 1985 was 1.2 percentage points higher than that for U.S. manufacturing.

Working Capital

After reaching the lowest level in more than a decade in 1984, working capital dropped by a further 23.9 percent in 1985, as shown below. While current assets rose 2.7 percent in 1985, current liabilities increased 8.1 percent.

	Working Capital		Change	
	12/31/85	12/31/84		
	Billion $		Billion $	Percent
Current Assets	138.6	134.9	+3.7	+2.7
Current Liabilities	121.4	112.3	+9.1	+8.1
Working Capital	17.2	22.6	-5.4	-23.9
Memo:				
Current Ratio	1.14	1.20		

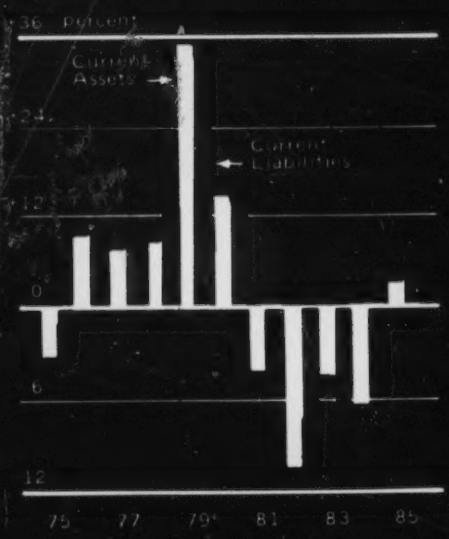
The current ratio (ratio of current assets to current liabilities) dropped from its previous all-time low of 1.20 to a new all-time low of 1.14. As shown in the adjoining chart covering the past decade, the current ratio has declined almost continuously since 1975, and particularly rapidly since 1979.

Declining oil prices have lowered the value of inventories while physical inventory levels have also been cut as a result of reduced consumption of oil products. Greater use of future markets to hedge price risks and the increased availability of crude oil and products on spot markets have also lowered inventory requirements.

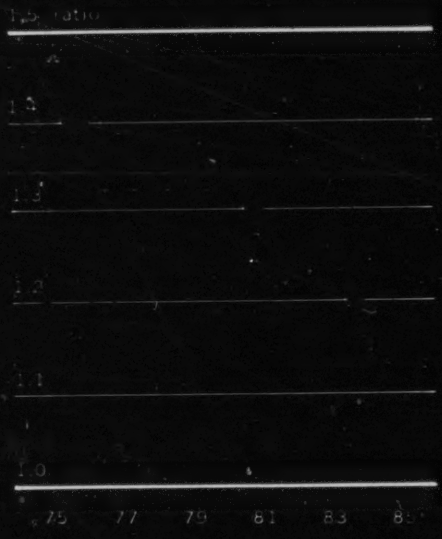
Capital Employed

After rising in 1984, the total capital employed by the Chase Group declined by 2.8 percent in 1985 to $241.0 billion, as shown below. Both long-term debt and shareholders' equity fell at about the same rate, so the long-term debt-to-capital ratio for the Group as a whole remained almost unchanged at a record high 28 percent.

CURRENT ASSETS AND CURRENT LIABILITIES – CHANGE FROM PRIOR YEAR



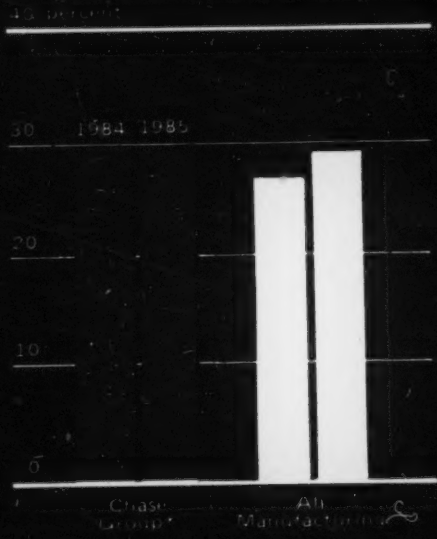
CURRENT RATIO



LONG TERM DEBT TO TOTAL CAPITAL

Chase Group

Company Groupings



	Capital Employed		Change	
	12/31/85	12/31/84		
	Million $		Million $	Percent
Long-Term Debt	68.4	69.9	-1.5	-2.1
Minority Interests	9.8	10.5	-0.7	-6.7
Shareholders' Equity	162.8	167.5	-4.7	-2.8
Total Capital Employed	241.0	247.9	-6.9	-2.8
Memo: Debt-to-Capital Ratio	0.284	0.282		

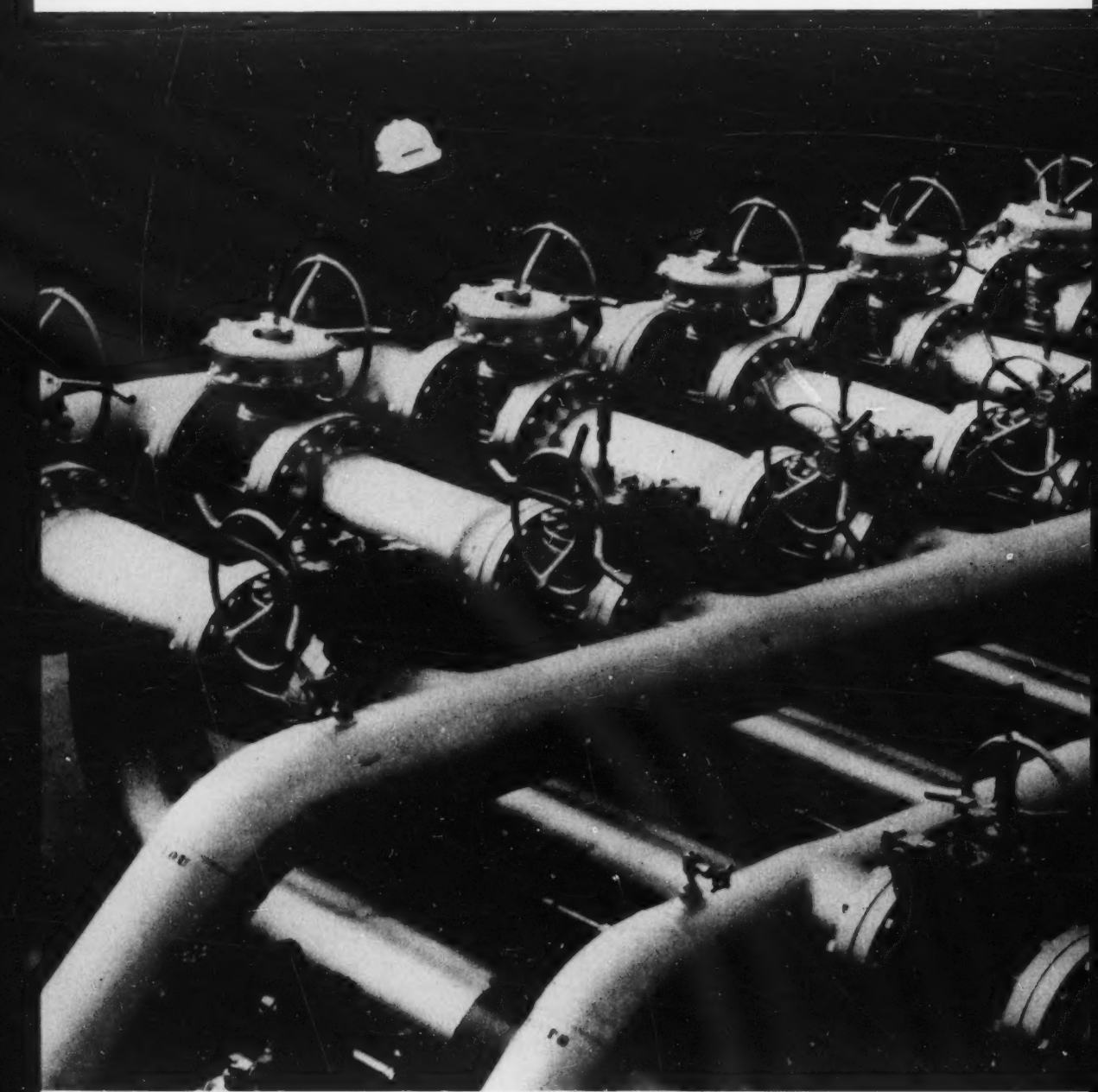
This continued stability in the relation between debt and equity masked a major divergence in trends between the larger and smaller companies in the Chase Group. The eight largest companies in terms of total revenue reduced their long-term debt by $9.2 billion in 1985, following a large buildup in 1984. The latter was primarily related to Chevron's acquisition of Gulf Oil and Texaco's acquisition of Getty Oil. In contrast, the 12 smaller companies incurred a $7.7 billion increase in long-term debt in 1985. Much of this was incurred by Phillips and Unocal in defense against hostile takeover attempts.

By the end of 1985, the Chase Group had nearly the same debt-to-capital ratio as that for U.S. manufacturing. Historically, the Chase Group of petroleum companies has had a substantially lower debt-to-capital ratio than for U.S. manufacturing, due to the inherently riskier nature of petroleum exploration.

The Chase Group's debt-to-capital ratio rose substantially, both absolutely and relative to that for manufacturing, during the 1973 to 1976 period. Rising oil prices following the first oil shock increased the expected profitability of capital in the petroleum industry. After 1976, the debt-to-capital ratio then declined for the Group, as rising petroleum profitability sharply boosted shareholders' equity.

In contrast to the petroleum industry debt buildup between 1973 and 1976, that which has occurred since 1983 has been primarily related to falling oil prices and related petroleum

industry restructuring. As oil prices have declined, equity build up has moderated. Also, several oil company mergers, acquisitions and restructurings have been accompanied by recapitalization, with large substitutions of long-term debt for equity. It is these factors that have raised the debt-to-capital ratio to a historic high for the Chase Group and to a level equal to that for U.S. manufacturing.



Source and Use of Funds

Sources

Total source of funds for the Chase Group amounted to $97.4 billion in 1985, $10.0 billion more than in 1984, largely as a result of asset sales. Some $14.2 billion was raised through net asset sales in 1985, as several of the companies sold off assets in an attempt to reduce outstanding debt. In contrast, in 1984, the Chase Group registered net asset sales of only $4.1 billion. Cash earnings also rose by $6.4 billion to $63.6 billion in 1985, while long-term debt and stock issued declined by $6.5 billion to $19.6 billion. Working capital was drawn down in both years, by $9.5 billion in 1984 and $5.3 billion in 1985.

Most of the larger companies obtained a greater proportion of their funds from internal cash flow and a smaller proportion from new long-term debt. For the largest eight companies by revenue, cash earnings accounted for over 70 percent of total source of funds, while issuance of long-term debt provided less than 10 percent. In contrast, for the 12 smaller companies, cash earnings and issuance of long-term debt each provided about 40 percent. This difference reflected the generally lower cash profitability of the smaller companies and the large increases in long-term debt required by Phillips and Unocal, in particular, as part of their successful defenses against takeover attempts.

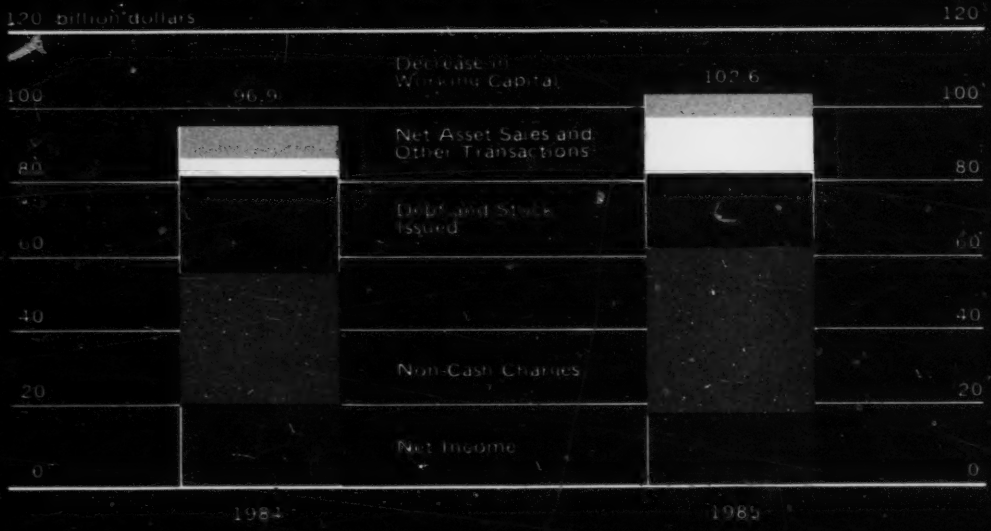
Uses

The Chase Group spent only $1.1 billion for mergers and acquisitions in 1985, compared to $25.7 billion in 1984, when Chevron acquired Gulf Oil, Texaco acquired Getty Oil, and Phillips acquired Aminoil. With $24.6 billion less being spent on mergers and acquisitions, spending in all areas rose substantially.

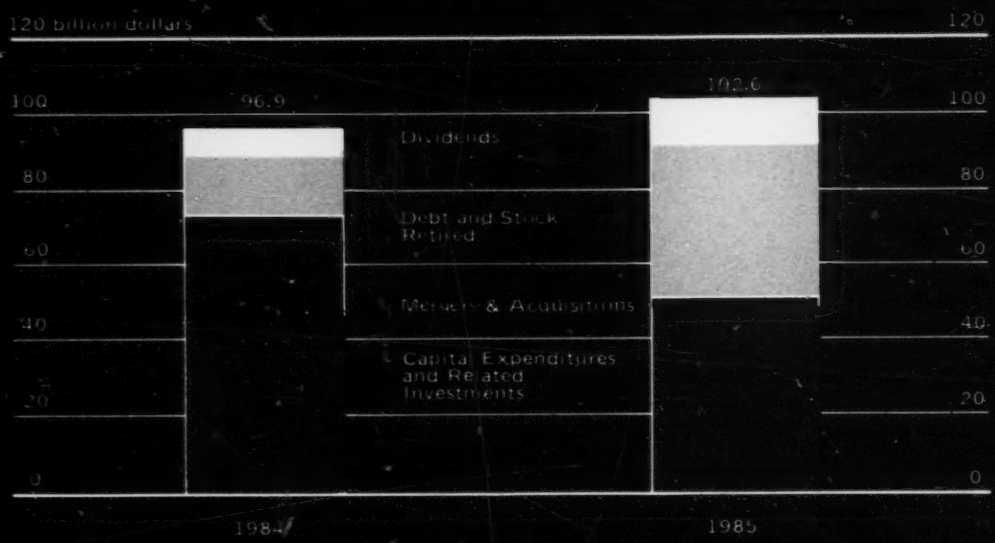
Most of the Chase Group companies increased their capital expenditures in 1985 in line with higher cash earnings, with the larger companies tending to register greater relative increases. For the entire Chase Group, capital expenditures rose $3.6 billion to $47.9 billion.

Cash dividends also increased by $2.0 billion to $12.6 billion. As in the past, the larger companies tended to pay out more of their cash earnings in the form of cash dividends.

SOURCE OF FUNDS



USE OF FUNDS



A major difference between the larger and smaller companies concerned trends regarding debt repayment. As previously mentioned, several of the larger companies that issued debt for mergers and acquisitions in 1984 repaid a substantial portion of that debt in 1985. For the entire Chase Group, the amount of long-term debt repaid rose from $7.0 billion in 1984 to $22.6 billion in 1985.

The amount of preferred and common stock retired by the Chase Group also increased sharply from $6.5 billion in 1984 to $17.2 billion in 1985. While most companies increased their purchases of outstanding common stock, particularly large repurchases were made by Unocal, Phillips and Arco as a part of their recapitalizations.

Capital and Exploration Expenditures and Costs Incurred

In the petroleum industry, different accounting treatments are used to measure expenditures related to acquiring and proving mineral reserves. "Capital expenditures," as reported in financial statements, include all expenditures for new fixed assets in all industry segments, such as those for refineries, pipelines, and producing wells and equipment. However, in the upstream portion of the industry, capital expenditures exclude a significant portion of the costs of property acquisition and exploration under the "successful efforts" accounting convention utilized by all members of the Chase Group. These costs, which appear as a deduction in the income statement, while not capital expenditures in an accounting sense, are still generally treated as capital budget items by the companies concerned.

A more complete measure of industry spending on new assets and reserves should therefore include all capitalized expenditures in all industry segments plus the expensed portion of costs incurred in property acquisitions and exploration. These "capital and exploration" expenditures are reported below.

"Costs incurred" include all the costs (both expensed and capitalized) incurred in property acquisitions, exploration and development for the upstream segment of the industry. These are also shown below.

The estimates of both capital and exploration expenditures and of total costs incurred exclude costs of properties

acquired in 1984 as part of Chevron's acquisition of Gulf Oil, Texaco's acquisition of Getty Oil and Phillips' acquisition of Aminoil. The difference between capital and exploration expenditures and costs incurred provides an indication of the capital spending downstream and in non-petroleum areas.

	1985	1984	Change	
	Million $		Million $	Percent
Worldwide Capital and Exploration Expenditures	59,600	54,517	+ 5,083	+ 9.3
Costs Incurred in Property Acquisitions, Exploration and Development				
United States	24,990	26,390	-1,400	-5.3
Rest of the World	17,120	14,450	+ 2,670	+18.5
Total	42,110	40,840	+ 1,270	+ 3.1

Total capital and exploration expenditures of the Chase Group rose by 9.3 percent in 1985. In contrast, the total costs incurred for the exploration and production segment of the industry increased only 3.1 percent. Technically, these growth rates are not strictly comparable, due to the different accounting conventions used. Still, such a comparison is in line with the general industry perception of lesser growth in upstream expenditures.

The slower growth in spending in the upstream segment largely resulted from the reduction of $1.4 billion in costs incurred by the Chase Group in the United States. This was primarily due to declines in Outer Continental Shelf lease bonuses paid by the Chase Group. Operational activity by the Chase Group remained about constant, while finding costs declined. In contrast, companies outside the Chase Group sharply reduced drilling expenditures in the United States, as reflected in the 11.3 percent decline in the number of feet drilled and an estimated 5.0 percent fall in drilling costs per foot.

Outside the United States, the Chase Group's costs incurred in upstream activities increased by $2.7 billion. Most of this was due to increased property acquisitions, as opposed to increased expenditures for drilling.

Chase Group and U.S. Independents

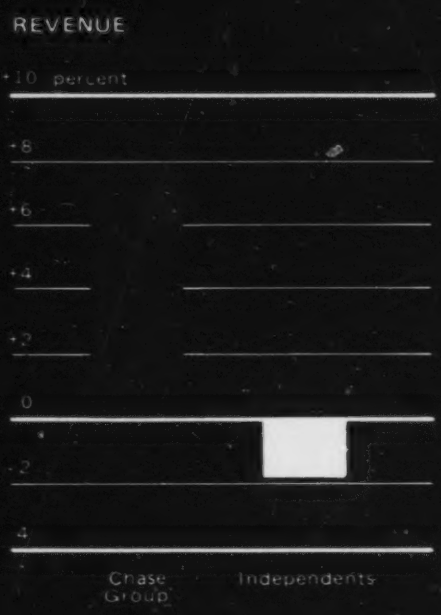
In 1985, the financial performance of the larger integrated oil companies in the Chase Group was generally superior to that of most of the smaller U.S.-based independent oil companies. In general, the Chase Group had greater exposure to those segments and geographic areas of the industry where profitability increased.

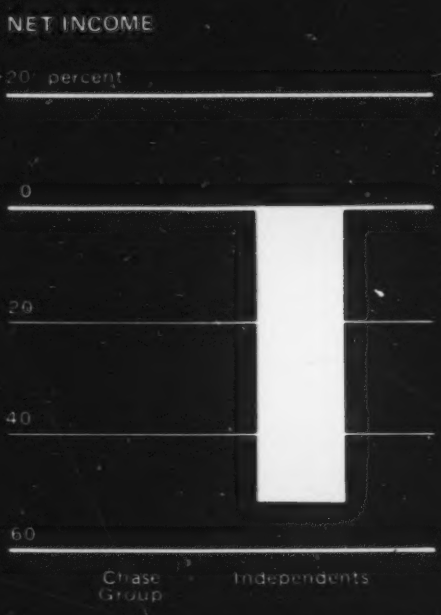
In contrast, the Independents were less well positioned in 1985 for a number of reasons. Firstiy, they are considerably more oriented to the U.S. exploration and production segment of the industry than the Chase Group. Consequently, the Independents did not benefit from the earnings growth that occurred in the downstream portion of the U.S industry. Secondly, within the exploration and production segment of the U.S. industry, the Independents are more oriented toward U.S. natural gas production than the Chase Group. Thus, they suffered relatively more from the decline in U.S. natural gas production. Finally, natural gas prices received by Independents in the United States tended to decline more than those received by the Chase Group. This occurred because Independents produce relatively more spot and "incentive gas" from deep wells and tight sands, prices of which declined sharply, while the Chase Group tends to sell a greater proportion of "old" gas, the price of which is controlled at a low level by U.S. government regulations and is permitted to rise gradually.

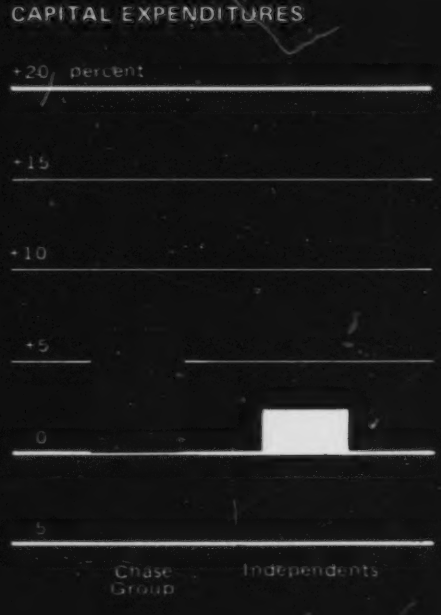
The decline in the value of the dollar was also a contributing factor to the generally poorer performance of the Independents, since the foreign earnings of many companies in the Chase Group benefited from the decline in the value of the dollar, which occurred in 1985. The Independents received little advantage from this trend.

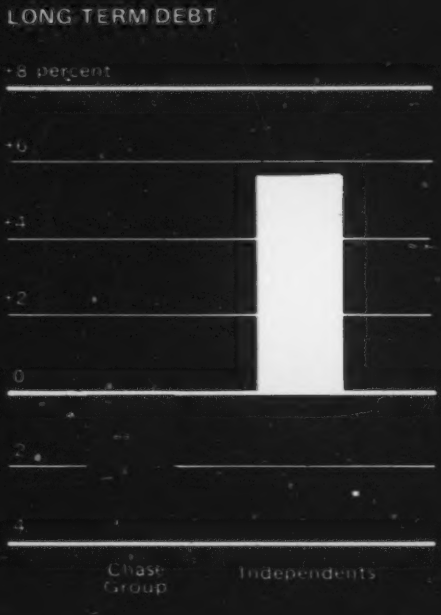
The performance of the Chase Group is compared with that of Independents on the opposite page. While the revenue of the Independents fell by 1.8 percent, and net income by 52.0 percent, the Independents increased capital expenditures by 2.3 percent. To support increased capital expenditures in the face of lower cash earnings, the Independents increased long-term debt by 5.7 percent. In contrast, the Chase Group reduced long-term debt by 2.2 percent, while increasing capital expenditures by 8.1 percent.

CHANGE IN KEY INDICATORS
1985 versus 1984









Reserves of Oil and Gas

Crude Oil and Natural Gas Liquids

In the United States, the Chase Group replaced 92 percent of crude oil and natural gas liquids production during 1985. Reserve additions from all sources equaled 1.80 billion barrels, compared to production of 1.95 billion barrels. Additions from discoveries, extensions and improved recovery accounted for 56 percent of all reserve additions. Revisions to prior-year estimates accounted for 28 percent, reflecting a normal pattern of reserve estimate adjustments. The remaining 16 percent came from net purchases of reserves by the Chase Group.

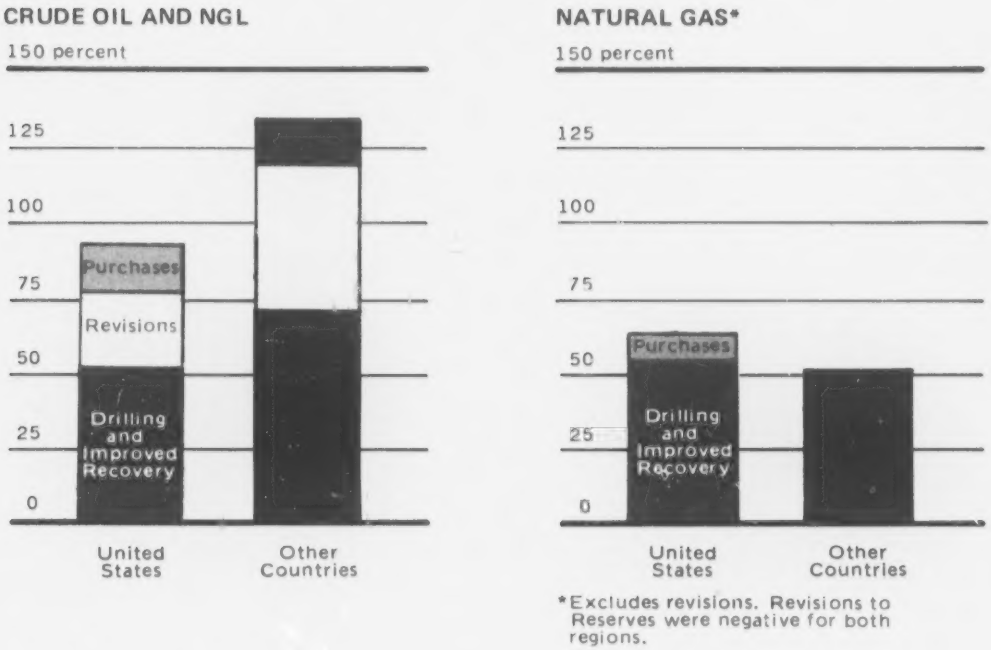
Outside the United States, reserve additions totaled 136 percent of crude oil and natural gas liquids production in 1985. Reserve additions from all sources equaled 2.44 billion barrels, compared to production of 1.80 billion barrels. No single factor accounted for the greater success achieved outside the United States in replacing oil production. Additions from discoveries, extensions and revisions of previous-year estimates and purchases of reserves were all higher outside the United States. Only additions from improved recovery contributed less to reserve replacement outside the United States, probably reflecting the greater use of secondary and tertiary recovery techniques in the United States. The greater success achieved by the Chase Group in replacing oil reserves outside the United States can be attributed to the growing maturity of the U.S. resource base.

Total worldwide reserves of crude oil and natural gas liquids for the Chase Group at the end of 1985 stood at 39.50 billion barrels, the highest level during the past five years. About half of all reserves were located in the United States. The reserve-to-production ratio for crude oil and natural gas liquids, at 10.5 for the Chase Group, has remained essentially constant for a number of years.

Natural Gas

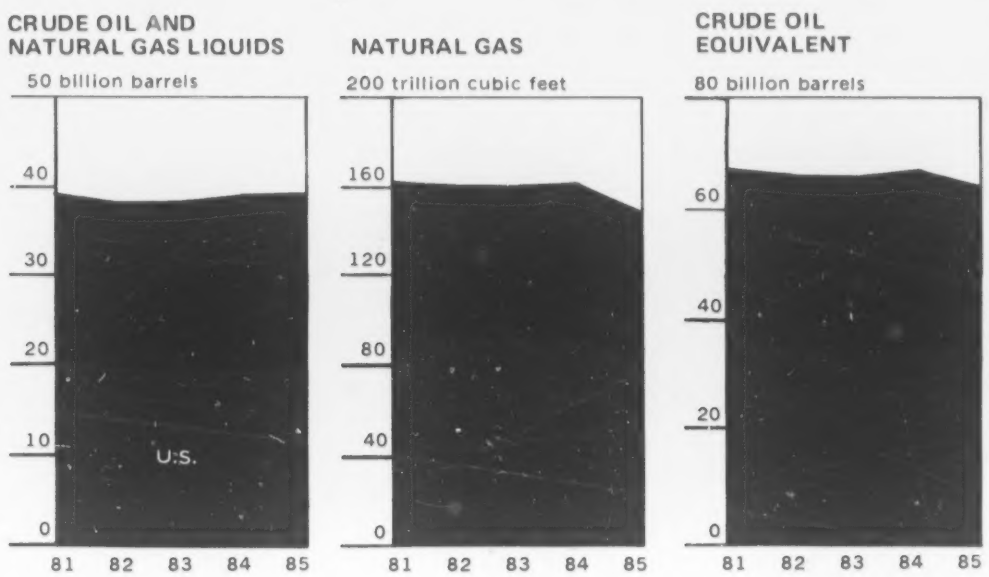
The natural gas reserve position of the Chase Group in 1985 was particularly affected by large negative revisions in prior-year reserves, both in the United States and elsewhere. In the United States, the bulk of the reduction came from Arco's 8.3 trillion cubic feet downward revision in Alaskan natural gas reserves. This reduction reflected the uneconomic nature of the

RESERVE REPLACEMENT



*Excludes revisions. Revisions to Reserves were negative for both regions.

RESERVES – END OF YEAR



potential development of Prudhoe Bay gas reserves, given the uncertainties regarding both future U.S. natural gas prices and the cost and availability of transportation facilities. The volume of Prudhoe Bay natural gas estimated to be technically recoverable remained unchanged. Excluding this revision, the Chase Group would have replaced 78 percent of U.S. natural gas production in 1985.

Outside the United States, the Chase Group replaced only 4 percent of natural gas production, as additions from all sources equaled 0.16 trillion cubic feet, compared to production of 3.92 trillion cubic feet. Here, too, at 1.8 trillion cubic feet, downward revisions to previous-year estimates were large. Three companies (BP, Shell and Phillips) accounted for all the net downward revision. Excluding any downward revisions, the Chase Group would have replaced 51 percent of natural gas production outside the United States.

The Chase Group's worldwide reserves of natural gas at the end of 1985 amounted to 149.5 trillion cubic feet, of which 56 percent were located in the United States. Total gas reserves are at the lowest level in the past five years. However, at 15.0, the Chase Group has a considerably higher reserve-to-production ratio for natural gas than for crude oil and natural gas liquids. This higher ratio probably reflects both the worldwide surplus of natural gas reserves and differing marketing considerations for oil and natural gas, especially overseas where long-term sales contracts for natural gas are predominant. Outside the United States, the reserve-to-production ratio for natural gas was 16.9 at the end of 1985, compared to 13.8 in the United States.

Total Reserves

During 1985, total proved reserves of crude oil, natural gas and natural gas liquids for the Chase Group declined from 66.2 barrels, crude oil equivalent, at the beginning of the year to 64.4 billion barrels at the end of the year. Proved reserves of crude oil and natural gas liquids rose by 0.5 billion barrels, while proved reserves of natural gas fell by 2.3 billion barrels, crude oil equivalent. This 1.8 billion barrel net decrease in total reserves more than offset the 1.3 billion barrel rise that occurred during 1984. Total reserves at the end of 1985 were lower than at any time during the past five years.

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CHANGES IN DEFINITIONS

Table 1 – Operating Data

Natural gas liquids now are added to crude oil production, whereas previously natural gas liquids were excluded.

Table 2 – Statements of Income

"Taxes Other than Income Taxes" previously appeared as a separate category. Now, these taxes are included in "Operating Costs and Expenses." The former category of "Write-Offs" now is replaced by "Depreciation, Depletion and Amortization." Dry holes and undeveloped lease rentals were also included in "Write-Offs" previously, but they now are included in "Operating Costs and Expenses." "Non-Operating Revenue" and "Total Revenue" no longer include equity interests in unconsolidated subsidiaries, which are now included in "Other Charges."

Table 3 – Percent Distribution of Total Revenue Dollar

See changes to Table 2.

Table 4 – Rates of Return

"Gross Operating Profit" reflects the changes to "Operating Costs and Expenses," as described for Table 2.

Table 5 – Earnings Reinvested and Employed

"Stock Dividends," formerly a separate entry, are now included in "Other Charges."

Table 6 – Balance Sheet

"Retained Earnings" (also referred to as "Earnings Reinvested in Business") and "Currency Translation Adjustment" previously were shown separately. Now, "Retained Earnings" includes this adjustment.

Table 7 – Working Capital

The former separate categories of "Cash" and "Marketable Securities" now are combined into one entry, "Cash and Equivalents." The breakdown of "Inventories" is no longer shown. "Income and Other Taxes" now are included in the "All Other" category under "Current Liabilities."

Table 8 – Source and Use of Working Capital

"Dividends to Minority Interests" and "Dividends to Companies' Shareholders" now are combined into "Dividends." "Depreciation, Depletion and Amortization" replaces "Write-Offs," as described above for Table 2. "Net Asset Sales and Other Transactions" excludes mergers and acquisitions, which are included separately as a use of funds. In prior editions, these two categories have been combined.

1 Operating Data

Net Production of Crude Oil and Natural Gas Liquids

	1985	1984	Change	
	Million Barrels per Day		Volume	Percent
United States	5.34	5.13	+ 0.21	+ 4.1
Other Countries	5.24	4.98	+ 0.25	+ 5.0
Total Chase Group	10.58	10.11	+ 0.46	+ 4.6
Memo:				
Percent Share by Chase Group of Total Worldwide Production Outside Centrally Planned Economies	25.0	23.6		

Net Production of Natural Gas

	1985	1984	Change	
	Trillion Cubic Feet		Volume	Percent
United States	6.05	6.29	− 0.24	− 3.9
Other Countries	4.15	3.92	+ 0.23	+ 5.9
Total Chase Group	10.20	10.21	− 0.01	− 0.1
Memo:				
Percent Share by Chase Group of Total Worldwide Production Outside Centrally Planned Economies	27.5	27.7		

Refinery Crude Runs

	1985	1984	Change	
	Million Barrels per Day		Volume	Percent
Total Chase Group	18.26	19.41	− 1.14	− 5.9

Note: The above figures for companies in the Chase Group include 100 percent of operations of companies and consolidated subsidiaries.

General note for all tables: Components may not add up to totals, due to independent rounding.

2 Statements of Income

Income Statement	1985	1984	Percent Change
	Billion Dollars		
Revenue:			
Gross Operating Revenue	564.6	524.6	+ 7.6
Non-Operating Revenue	7.4	5.4	+ 36.6
Total Revenue	572.0	530.1	+ 7.9
Deductions:			
Operating Costs and Expenses	442.5	417.1	+ 6.1
Selling, General and Administrative Expenses	31.3	28.0	+ 11.8
Depreciation, Depletion and Amortization	31.4	26.2	+ 20.2
Interest Expense	10.2	8.1	+ 25.3
Other Charges (a)	−1.1	−4.4	− 75.0
Total Deductions	514.3	474.9	+ 8.3
Net Income Before Income Taxes	57.7	55.2	+ 4.6
Estimated Income Taxes	35.5	32.5	+ 9.2
Income Applicable to Minority Interests	1.5	1.4	+ 2.8
Net Income Before Extraordinary Items	20.7	21.2	− 2.2
Extraordinary Items	−2.0	−1.2	+ 66.7
Net Income	18.7	20.1	− 6.8

(a) Expense items not of an operating nature and not specifically selling, general and administrative or interest expenses, net of equity interests in unconsolidated subsidiaries. A negative amount in "Other Charges" represents an income item and occurs when equity interests in unconsolidated subsidiaries exceed these other expenses.

Results from Oil and Gas Producing Activities	1985	1984	Percent Change
	Billion Dollars		
Total Revenue	119.3	113.6	+ 5.0
Deductions:			
Production Costs	34.8	33.3	+ 4.8
Exploration Expenses	11.4	10.2	+ 12.7
Other Operating Expenses	2.4	2.3	+ 3.0
Depreciation, Depletion and Amortization	18.9	16.6	+ 13.8
Total Deductions	67.6	62.3	+ 8.4
Results Before Income Taxes	51.8	51.3	+ 1.0

3 Percent Distribution of Total Revenue Dollar

	1985	1984
	Cents	
Operating Costs and Expenses	77.4	78.7
Selling, General and Administrative Expenses	5.5	5.3
Depreciation, Depletion and Amortization	5.5	4.9
Interest Expense	1.8	1.5
Other Charges (a)	–0.2	–0.8
Estimated Income Taxes	6.2	6.1
Income Applicable to Minority Interests	0.3	0.3
Extraordinary Items	0.4	0.2
Dividends to Stockholders	2.4	2.0
Reinvested in Business	0.8	1.8
Total Revenue	100.0	100.0

(a) A negative percentage for "Other Charges" represents an income item and occurs when equity interests in unconsolidated subsidiaries exceed other miscellaneous expenses (see footnote for Table 2).

4 Rates of Return

	1985	1984
	Billion Dollars	
Average Shareholders' Equity (a)	165.1	173.3
Earnings (b)	18.7	20.1
Return for Chase Group	11.3%	11.6%
Return for All Manufacturing (c)	10.1%	12.5%
Average Capital Employed (d)	244.5	247.4
Earnings (e)	30.4	29.6
Return for Chase Group	12.4%	12.0%
Average Gross Fixed Assets	421.1	393.3
Gross Operating Profit (f)	122.1	107.6
Return for Chase Group	29.0%	27.4%
Average Total Assets	430.3	418.3
Earnings (g)	20.2	21.5
Return for Chase Group	4.7%	5.1%

(a) Includes preferred stock, common stock and surplus.
(b) Represents net income.
(c) Sources: U.S. Department of Commerce, Bureau of the Census, "Quarterly Financial Report for Manufacturing, Mining and Trade Corporations."
(d) Includes long-term debt, preferred stock, common stock, surplus and equity of minority interests.
(e) Represents net income plus interest charges and income applicable to minority interests.
(f) Represents gross operating revenue, less operating costs and expenses.
(g) Represents net income plus income applicable to minority interests.

5 Earnings Reinvested and Employed

	Billion Dollars
Balance at December 31, 1984	144.1
Add: Net Income	18.7
Subtotal	162.8
Less: Cash Dividends	13.8
Other Charges (a)	8.8
Balance at December 31, 1985	140.1

(a) Includes miscellaneous adjustments such as foreign currency translation, retirement of treasury stock, sale of subsidiaries, accounting changes and/or restatement of the balance sheet.

6 Balance Sheet

	12/31/85	*12/31/84*	*12/31/85*	*12/31/84*
	Billion Dollars		*Percent Distribution*	
Assets				
Current Assets	138.6	134.9	31.8	31.8
Investments and Advances	22.8	21.9	5.2	5.2
Property, Plant and Equipment (a)	268.2	254.9	61.5	60.1
Other Assets	6.7	12.5	1.5	3.0
Total Assets	436.3	424.2	100.0	100.0
Liabilities and Net Worth				
Liabilities:				
Current Liabilities	121.4	112.3	27.8	26.5
Long-Term Debt	68.4	69.9	15.7	16.5
Deferred Credits	46.8	40.9	10.7	9.6
Other Reserves	27.2	22.9	6.2	5.4
Minority Interests	9.8	10.5	2.2	2.5
Total Liabilities	273.5	256.6	62.7	60.5
Shareholders' Equity:				
Preferred Stock	0.7	1.1	0.2	0.3
Common Stock	6.6	6.3	1.5	1.5
Capital Surplus	15.4	16.1	3.5	3.8
Retained Earnings	140.1	144.1	32.1	34.0
Total Shareholders' Equity	162.8	167.5	37.3	39.5
Total Liabilities and Shareholders' Equity	436.3	424.2	100.0	100.0

(a) After deducting accumulated reserves of $172.6 billion in 1985 and $146.5 billion in 1984.

7 Working Capital

	12/31/85	12/31/84	Change	12/31/85 Percent Distribution	12/31/84 Percent Distribution
	Billion Dollars				
Current Assets					
Cash and Equivalents	30.2	31.2	– 1.0	21.8	23.1
Accounts and Notes Receivable	58.2	54.6	+ 3.6	42.0	40.5
Inventories	40.4	41.8	– 1.4	29.2	31.0
All Other	9.8	7.2	+ 2.5	7.0	5.4
Total Current Assets	138.5	134.9	+ 3.8	100.0	100.0
Current Liabilities					
Accounts Payable	54.4	50.5	+ 3.9	44.8	45.0
Notes and Loans Payable	22.1	20.7	+ 1.4	18.2	18.4
All Other	44.8	41.1	+ 3.8	37.0	36.6
Total Current Liabilities	121.4	112.3	+ 9.1	100.0	100.0
Working Capital	17.3	22.6	– 5.3		
Memo:					
Current Ratio for Chase Group	1.14	1.20	– .06		

8 Source and Use of Working Capital

	1985	1984
	Billion Dollars	
Funds Available from:		
Cash Earnings (a)	63.6	57.2
Long-Term Debt Issued	19.1	24.9
Preferred and Common Stock Issued	0.5	1.2
Net Asset Sales and Other Transactions (b)	14.2	4.1
Total	97.4	87.4
Funds Used for:		
Capital Expenditures	47.9	44.3
Investments and Advances	1.2	2.8
Cash Dividends	12.6	10.6
Long-Term Debt Repaid	22.6	7.0
Preferred and Common Stock Retired	17.2	6.5
Mergers and Acquisitions (b)	1.1	25.7
Total	102.6	96.9
Change in Working Capital	–5.3	–9.5

(a) Cash Earnings represented by:

	1985	1984
	Billion Dollars	
Net Income	18.7	20.1
Depreciation, Depletion and Amortization	31.4	26.2
Other Non-Cash Charges (net)*	13.5	10.9
Cash Earnings	63.6	57.2

*Includes deferred taxes, dividends greater than equity interests in unconsolidated subsidiaries, income applicable to minority interests, dry hole costs expended in prior years, and writedowns of assets and discontinued operations.

(b) "Net Assets Sales and Other Transactions" excludes mergers and acquisitions, which are included separately as a use of funds. In prior editions, these two categories have been combined.

9 Estimated Proved Developed and Undeveloped Reserves of Oil and Gas – 1985*

Crude Oil and Natural Gas Liquids

	Billion Barrels
United States:	
Reserves at Beginning of Year	19.94
Revisions of Previous Estimates	0.51
Additions from Discoveries and Extensions	0.48
Additions from Improved Recovery	0.52
Purchase of Minerals in Place	0.29
Production	−1.95
Reserves at End of Year	19.78
Of Which Proved Developed Reserves	15.31
Memo:	
End-of-Year Reserves-to-Production Ratio	10.2

	Billion Barrels
Foreign:	
Reserves at Beginning of Year	19.07
Revisions of Previous Estimate	.85
Additions from Discoveries and Extensions	1.14
Additions from Improved Recovery	.13
Purchase of Minerals in Place	.32
Production	−1.80
Reserves at End of Year	19.72
Of Which Proved Developed Reserves	12.74
Memo:	
End-of-Year Reserves-to-Production Ratio	11.0

Total Worldwide (Including U.S.):	*Billion Barrels*
Reserves at Beginning of Year	39.01
Revisions of Previous Estimates	1.36
Additions from Discoveries and Extensions	1.62
Additions from Improved Recovery	0.65
Purchase of Minerals in Place	0.61
Production	−3.75
Reserves at End of Year	39.50
Of Which Proved Developed Reserves	28.05
Memo:	
End-of-Year Reserves-to-Production Ratio	10.5

* Data from TOTAL Compagnie Française des Petroles are not included in these tables.

9 Estimated Proved Developed and Undeveloped Reserves of Oil and Gas – 1985*

(Continued)

Natural Gas

	Trillion Cubic Feet
United States:	
Reserves at Beginning of Year	92.69
Revisions of Previous Estimates	–7.42
Additions from Discoveries and Extensions	3.22
Additions from Improved Recovery	0.11
Purchase of Minerals in Place	0.48
Production	–6.04
Reserves at End of Year	83.04
Of Which Proved Developed Reserves	66.19
Memo:	
End-of-Year Reserves-to-Production Ratio	13.8

	Trillion Cubic Feet
Foreign:	—
Reserves at Beginning of Year	70.20
Revision of Previous Estimates	–1.83
Additions from Discoveries and Extensions	1.93
Additions from Improved Recovery	.04
Purchase of Minerals in Place	.02
Production	–3.92
Reserves at End of Year	66.44
Of Which Proved Developed Reserves	44.55
Memo:	
End-of-Year Reserves-to-Production Ratio	16.9

	Trillion Cubic Feet
Total Worldwide (Including U.S.):	
Reserves at Beginning of Year	162.89
Revisions of Previous Estimates	–9.25
Additions from Discoveries and Extensions	5.15
Additions from Improved Recovery	0.15
Purchase of Minerals in Place	0.50
Production	–9.96
Reserves at End of Year	149.47
Of Which Proved Developed Reserves	110.74
Memo:	
End-of-Year Reserves-to-Production Ratio	15.0

9 Estimated Proved Developed and Undeveloped Reserves of Oil and Gas – 1985*

(Continued)

Total Crude Oil, Natural Gas Liquids and Natural Gas (a)

	Billion Barrels
United States:	
Reserves at Beginning of Year	35.38
Revisions of Previous Estimates	–0.73
Additions from Discoveries and Extensions	1.02
Additions from Improved Recovery	0.54
Purchase of Minerals in Place	0.37
Production	–2.95
Reserves at End of Year	33.62
Of Which Proved Developed Reserves	26.34
Memo:	
End-of-Year Reserves-to-Production Ratio	11.4

	Billion Barrels
Foreign:	
Reserves at Beginning of Year	30.78
Revisions of Previous Estimates	.54
Additions from Discoveries and Extensions	1.46
Additions from Improved Recovery	.13
Purchase of Minerals in Place	.32
Production	–2.46
Reserves at End of Year	30.79
Of Which Proved Developed Reserves	20.16
Memo:	
End-of-Year Reserves-to-Production Ratio	12.5

Total Worldwide (Including U.S.):	*Billion Barrels*
Reserves at Beginning of Year	66.16
Revisions of Previous Estimates	–0.19
Additions from Discoveries and Extensions	2.48
Additions from Improved Recovery	0.67
Purchase of Minerals in Place	0.69
Production	–5.41
Reserves at End of Year	64.41
Of Which Proved Developed Reserves	46.50
Memo:	
End-of-Year Reserves-to-Production Ratio	11.9

(a) Expressed in terms of "crude oil equivalent," defined as the sum of previous tables for crude oil, natural gas liquids and natural gas, using a conversion factor of six thousand cubic feet of natural gas per barrel of liquids.

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